



## STEM Edge - **Regents Exam Prep Science & Math Enrichment Series** for High School Students

Long Island University's robust new STEM (science, technology, engineering, math) education enrichment is giving high school students enhanced comprehension, competency and the confidence they need for high-stakes exams and current classwork.

As the leader in healthcare sciences and pharmaceutical science programs, Long Island University (LIU) is uniquely suited to support high school students' college readiness in mathematics and science (STEM). Now, in collaboration with Learn America (an organization also dedicated to advancing science and mathematics education) LIU has launched a series of STEM focused preparatory courses supporting students' high stakes testing needs in NYS Regents exams, AP exams and SAT's.

"One important key to success is self-confidence.

An important key to self-confidence is preparation." —Arthur Ashe

### **How does this unique individualized preparation support students on multiple levels?**

With jam-packed course loads, students are looking for ways to succeed on exams in preparation for college. Individualized learning strategies are critical in providing the support they need. LIU's new STEM Edge is a readiness and enrichment program, designed to help students at all levels of ability in high school math and science subjects.

The program begins with an assessment to identify the individual student's strengths and weaknesses. Using this information an individualized learning plan is created by experienced high school and college master educators. Then on LIU's learning portal, created in collaboration with Learn America, students follow their personalized learning path.

On the portal students will find detailed easy-to-follow explanations by topic, numerous examples and related animated videos. Students have the opportunity to take self-assessments and receive periodic instructor monitored assessments. Throughout the course, faculty and teaching assistants will moderate on-line forums where students can post questions and get answers. Towards the end of the course, LIU will host two-hour long intense course dialogs addressing problematic areas identified by students taking the course. Students can join the conversation in person on the LIU Post campus, or streamed live remotely. One week prior to their actual test students take a Ready Review exam, to identify any remaining comprehension gaps.

Learn More & Enroll  
**[learnamerica.liu.edu/regents](https://learnamerica.liu.edu/regents)**  
or call 516-299-2236

# The 7-Step Individualized STEM Edge process

Step 1

## **Pre-Assessment**

A student takes a pre-assessment exam to determine individual strengths and weaknesses.

Step 2

## **Personally Planned Curriculum**

Based on this assessment a student will follow their personally designed curriculum on the course learning portal. Here they will view detailed easy-to-follow explanations by topic, numerous examples and related animated videos. Self-assessment quizzes are provided to confirm a student's proficiency prior to moving on to next topic.

Step 3

## **Periodic Formative Updates**

Our instructors will monitor each student's individual progress and periodically provide formative assessments.

Step 4

## **Interactive Moderated On-line Forum**

All students will have access to a course specific, moderated on-line forum where they are encouraged to participate in discussions with teaching assistants and faculty who will monitor/mentor them.

Step 5

## **Personalized Progress Report**

Each student receives a progress report prior to the instructor-led review dialogs. This report will allow the student to focus on strengthening any remaining areas of concern during the last few weeks of the program.

Step 6

## **Intense Interactive Review Dialogs**

Faculty led review dialogs are conducted in a classroom on the LIU Post campus. Students are welcome to come and participate in person, or connect remotely via live streaming. All students have the opportunity to submit questions while the dialog is live. Sessions will be recorded and made available on-demand.

Step 7

## **Ready Review - One Week Prior to Exam**

Each student will be given a final summative assessment, providing them with information on their level of exam readiness.



### **Practice Tests Available Anytime**

Students may access simulated practice tests designed by our experts, as well as previously administered actual exams.

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## STEM Edge Series

### Regents Prep Course Catalog

**Start Date: April 1, 2017** (for Regents Exams starting June 13)

#### Regents – Algebra 1 - Cost: \$99

This course covers the material required for students to take the Algebra 1 (Common Core) Regents exam. Algebra 1 is the first of three courses required to earn a Regents Diploma with Advanced Designation. Topics include: polynomial operations, linear and quadratic functions, solving equations and inequalities, systems of equations, exponents and exponential equations, radical expressions, rational expressions, functions, sequences, statistics, permutations and real world applications. *Graphing calculators required.*

#### Regents - Geometry - Cost: \$99

This course covers the material required for students to take the Geometry (Common Core) Regents exam. Geometry is the second of three courses required to earn a Regents Diploma with Advanced Designation. Topics include: basic geometric relationships, properties, congruence and similarity of triangles, coordinate geometry and transformations, quadrilaterals, circles constructions, areas, volume, locus, reasoning and proofs. *Graphing calculators required.*

#### Regents – Algebra 2 - Cost: \$99

This course covers the material required for students to take the Algebra 2 (Common Core) Regents exam. Algebra 2 is the third course required to earn a Regents Diploma with Advanced Designation. Topics include: functions (absolute value, piecewise, polynomial, exponential, logarithmic, radical, trigonometric), complex numbers, solving systems of equations graphically and algebraically, variation, data analysis, regression modeling, measures of dispersion, and circular functions. *Graphing calculators required.*

#### Regents – Living Environment / Biology - Cost: \$99

This course covers the material required for students to take the Living Environment / Biology Regents exam. Topics include: characteristics of living systems, human structure and function, genetics and mechanism of inheritance, genetic engineering, variation adaptation evolution, reproduction and development, energy pathways, disease and homeostasis, biotic and abiotic interactions, interdependence, and technology and the environment. *4-Function or scientific calculator required.*

#### Regents – Physical Setting / Chemistry - Cost: \$99

This course covers the material required for students to take the Physical Setting / Chemistry Regents exam. Topics include: atomic concepts, periodic table, moles/stoichiometry, bonding, organic chemistry, physical behavior of matter, kinetics/equilibrium, oxidation-reduction, acids, bases and salts, nuclear chemistry and information on the Chemistry Reference tables, historic content, the scientific method, uncertainty in measurement, significant figures and the International System of Units. *4-Function or scientific calculator required.*

#### Regents – Physical Setting / Physics - Cost: \$99

This course covers the material required for students to take the Physics Regents exam. Topics include: mechanics, energy, electricity and magnetism, waves, and modern physics. historic content, uncertainty in measurement, information on the Physics Reference tables, significant figures and the International System of Units. *Scientific or graphing calculator required.*

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